

WE LOOK AFTER THE EARTH BEAT

# EXOMARS

V. Giorgio

15/5/2014

Exploration and Science

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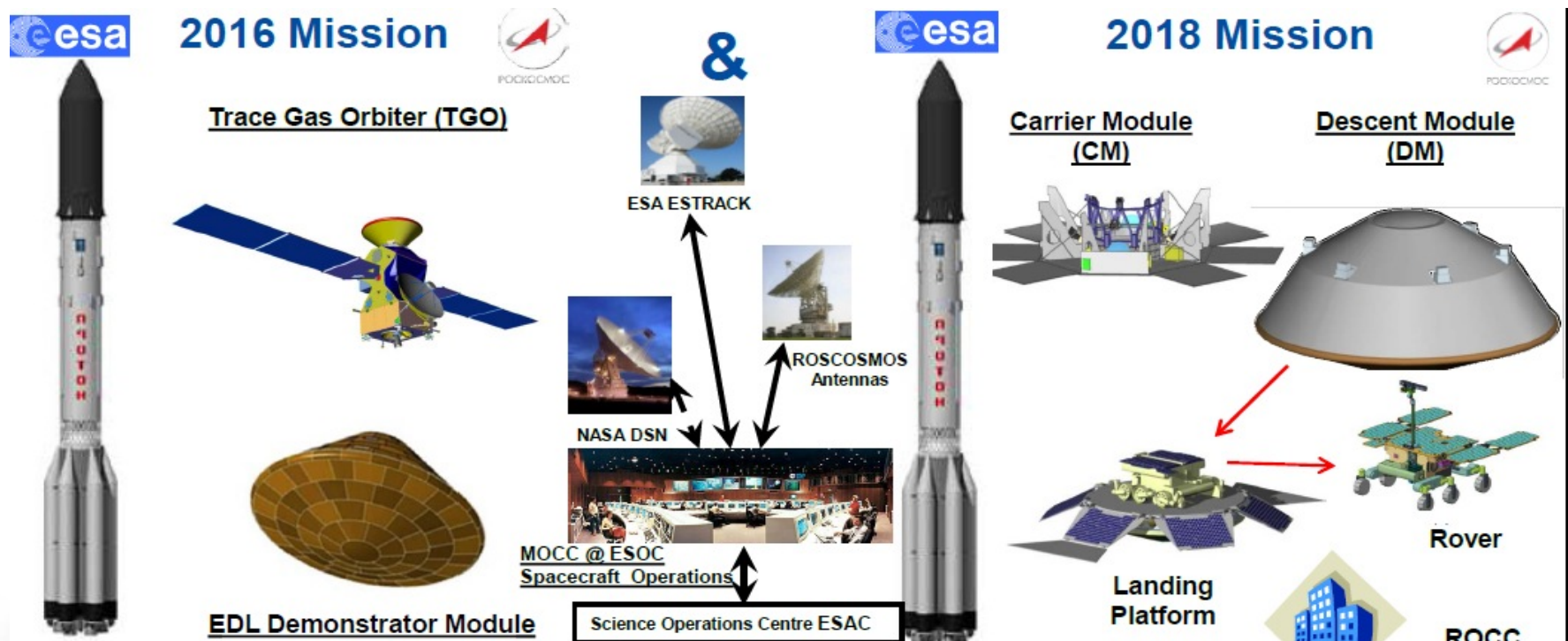
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# ExoMars Programme

2

**Two missions launched in 2016 and 2018, respectively:**

- ✈ 2016 Mission composed of a **Trace Gas Orbiter (TGO)** and an **Entry Descent and Landing Demonstrator Module (EDM)**
- ✈ 2018 Mission composed of a **Carrier Module (CM)** shipping a **Descent Module (DM)** that contains a **Rover** and a stationary **Landing Platform**.



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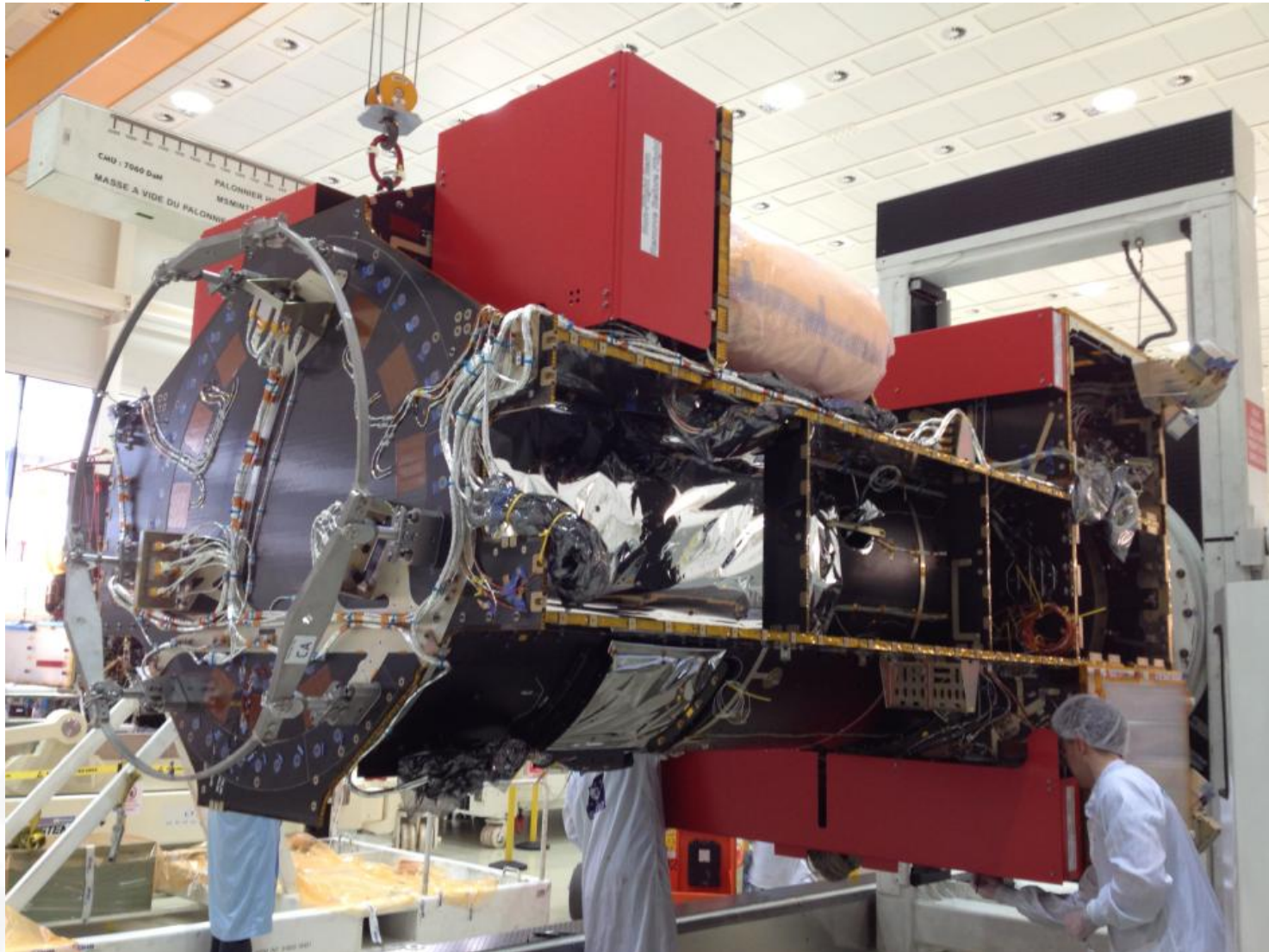
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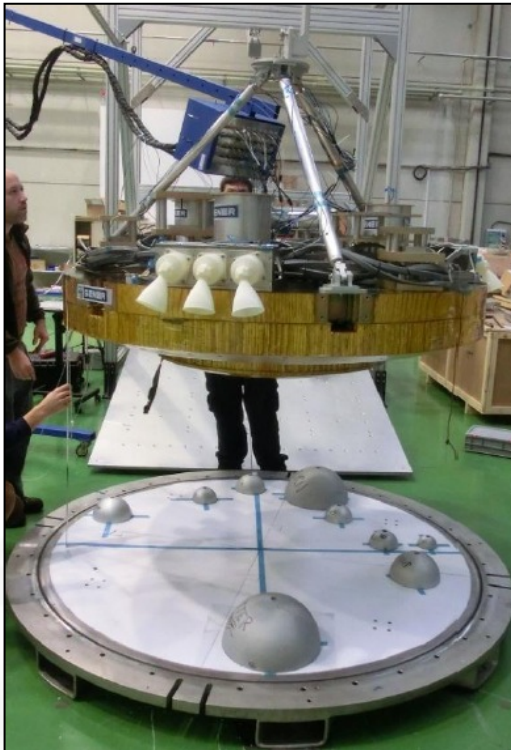
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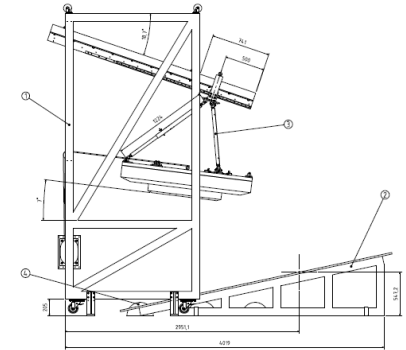
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## Landing Impact tests

- Crushing Test on Samples (performed)
- Full Scale BB crush test campaign (performed)
- Qualification Test on ESP QM
- Test performed at subcontractor level (SENER)



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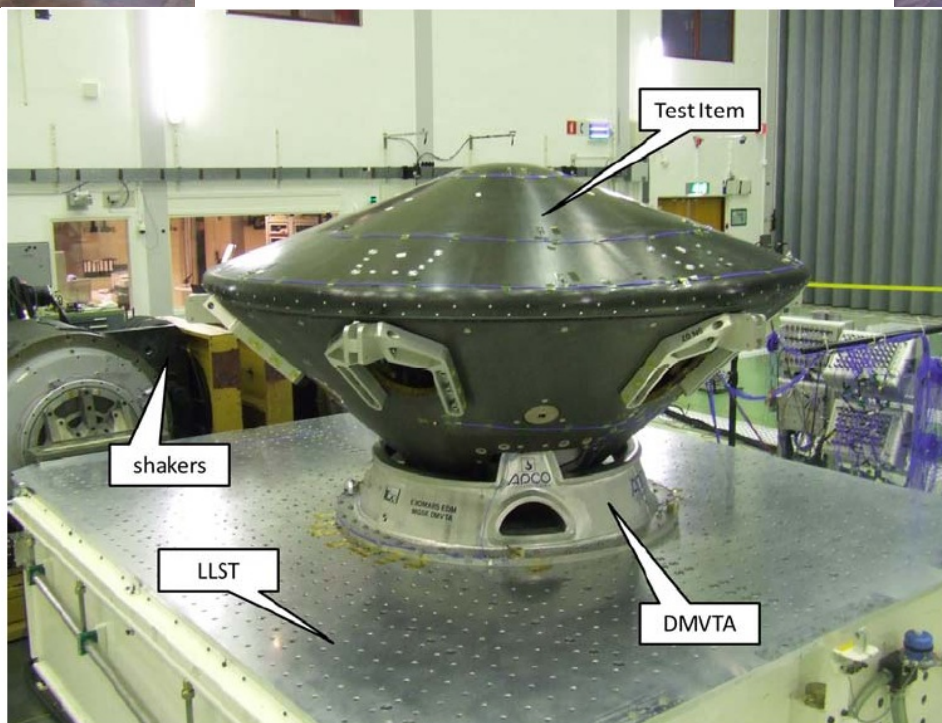
## ➤ Test on full scale BB

Credit of SENER

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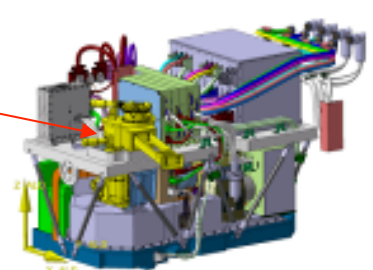
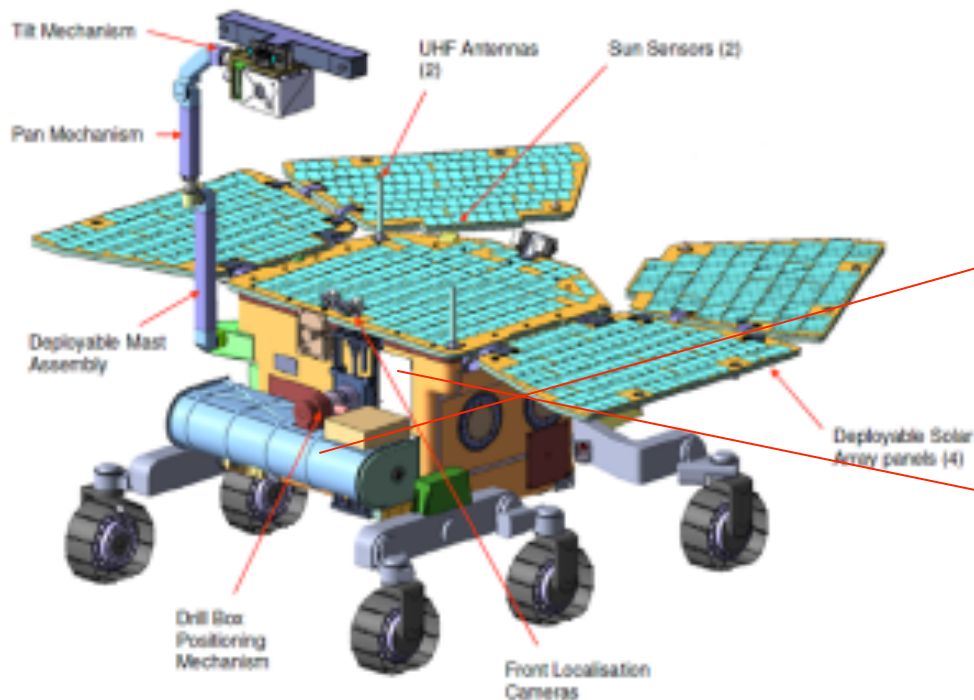
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**Rover: ESA (350 kg class)**

**Two Russian instruments (Infrared Spectrometer on Deployable Mast and Radiation Monitor on the RV body)**

**Drill**



**ALD**

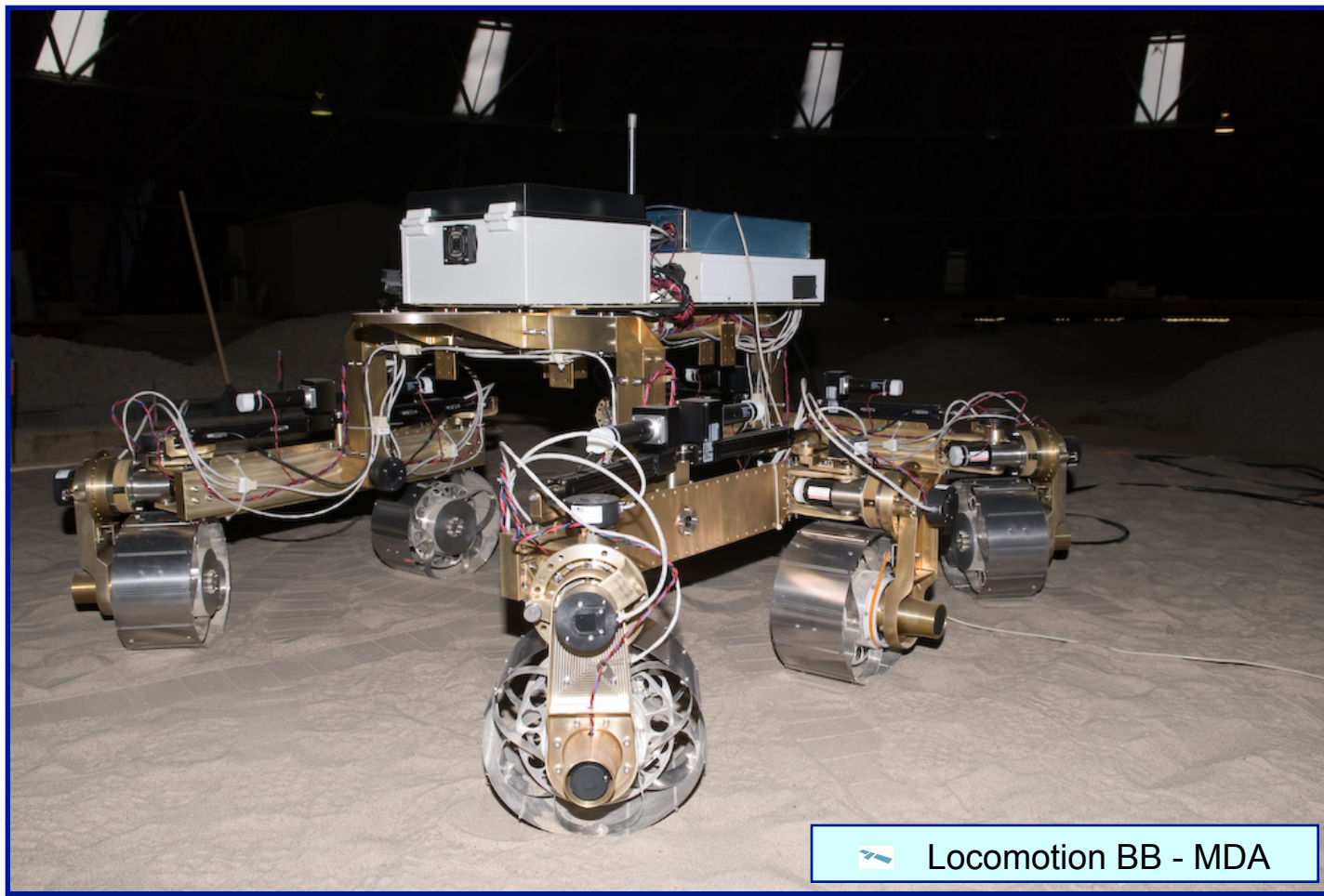
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# Technology Readiness



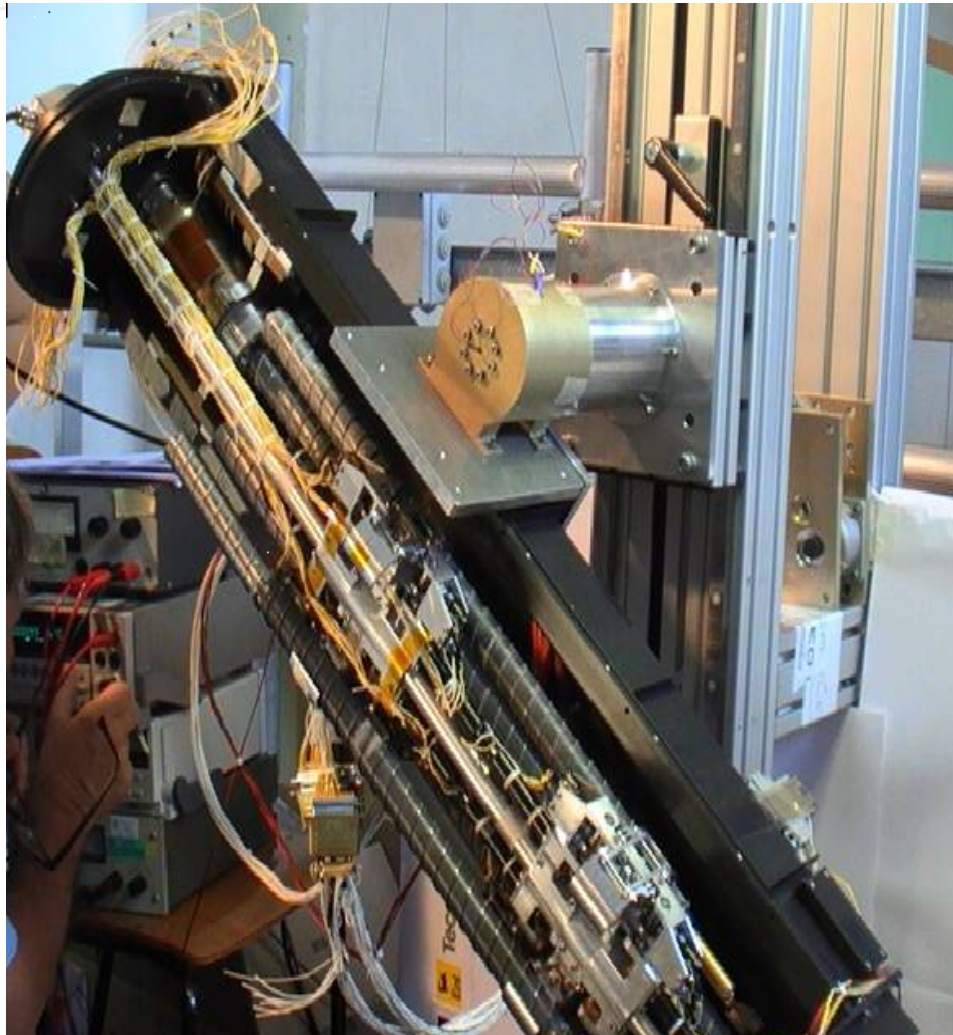
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# Technology Readiness

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Drill BB (courtesy of Selex)

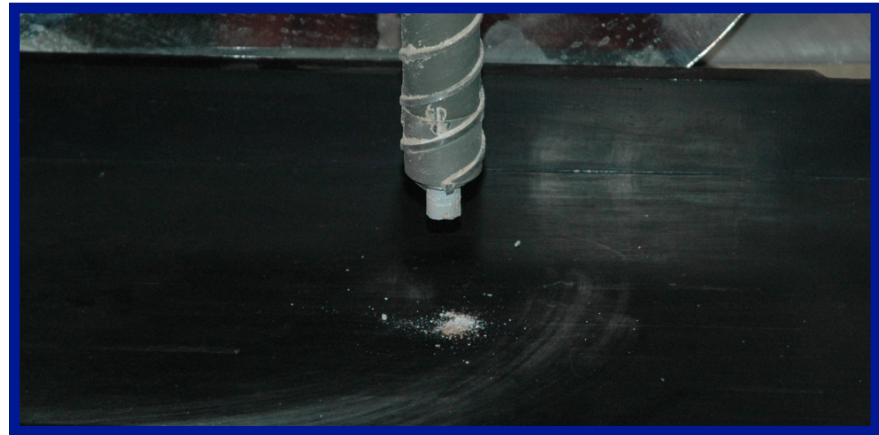
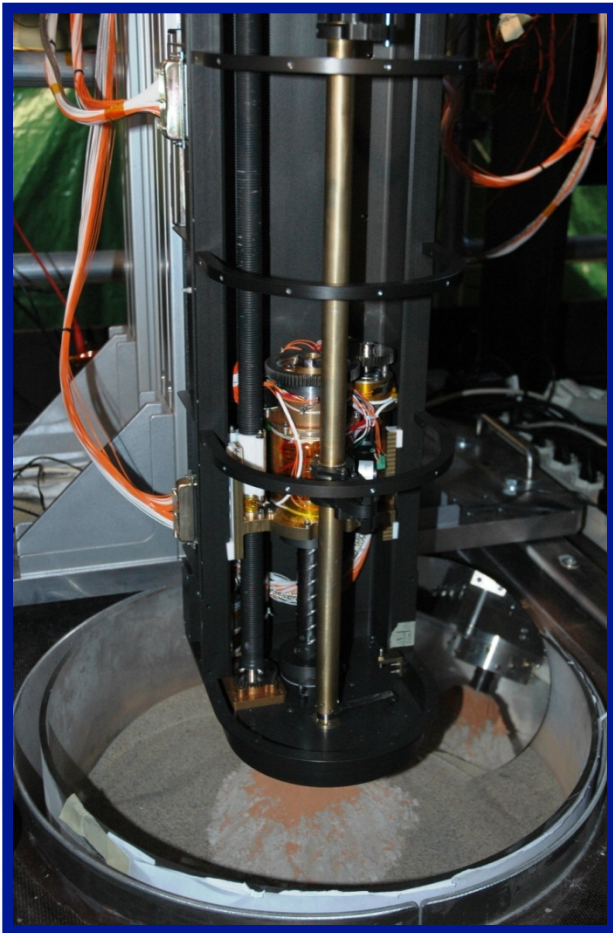
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# Technology Readiness

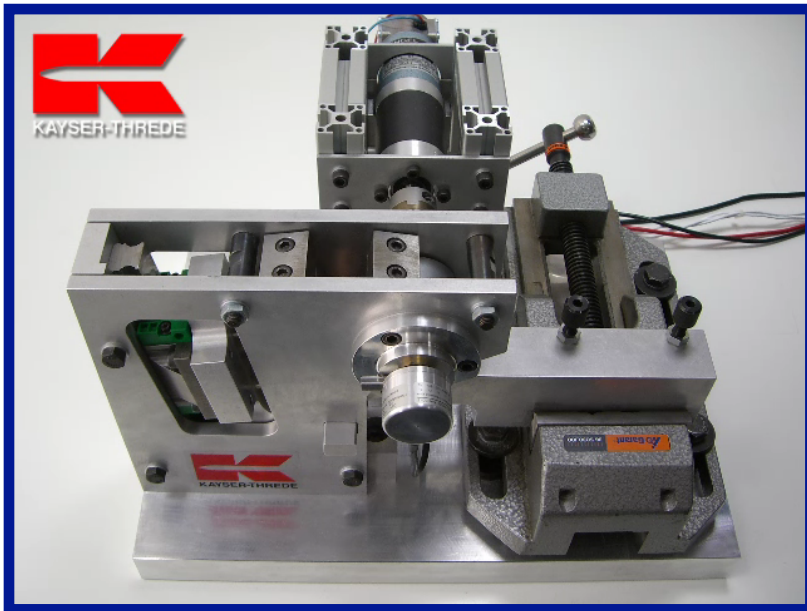


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Drill BB – SELEX

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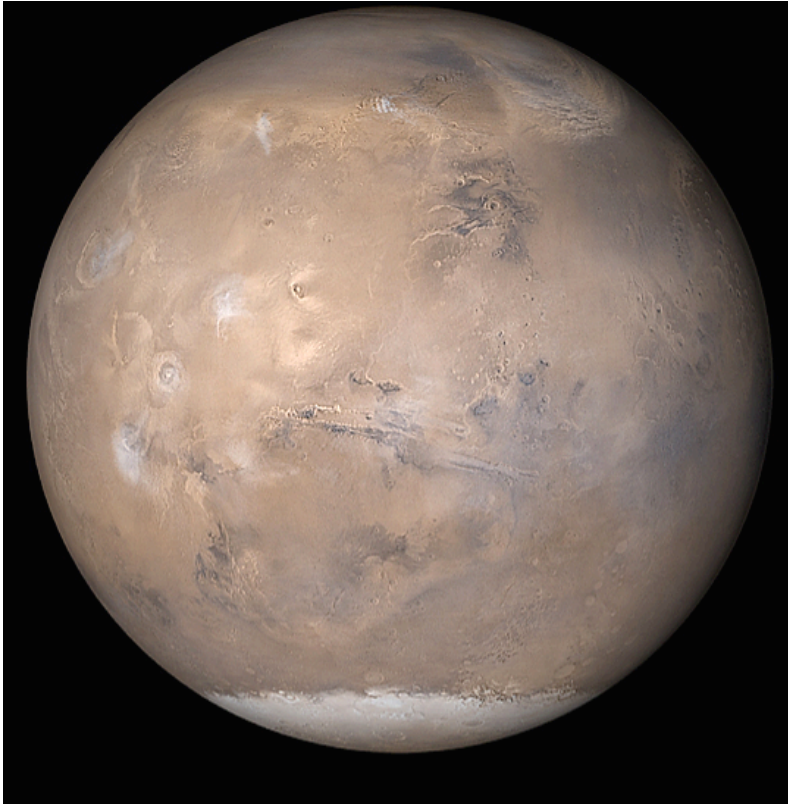


Milling Station BB – courtesy of Kaiser Threde

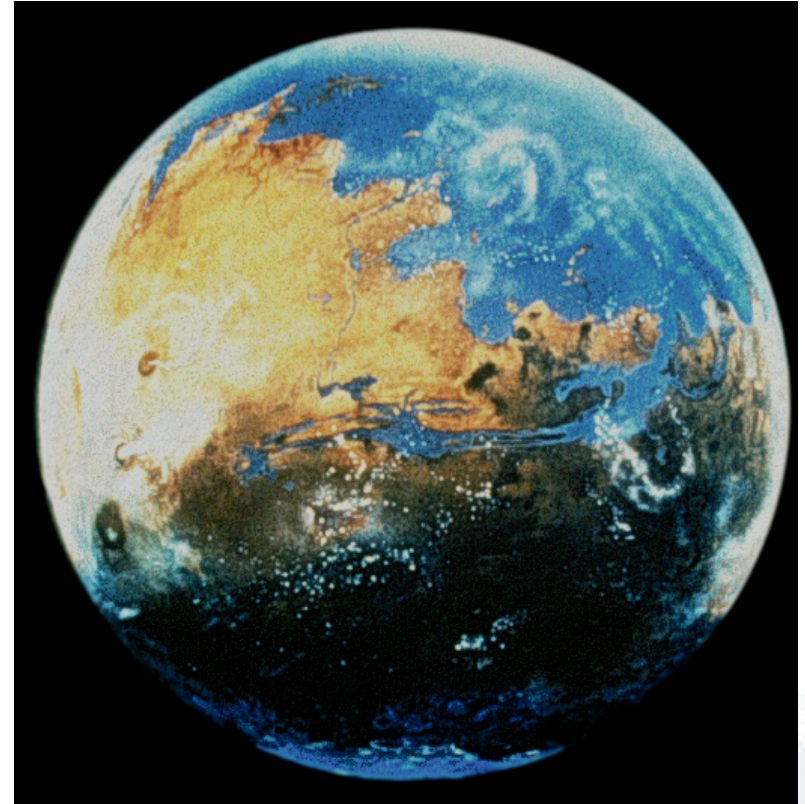


Dosing Station BB – courtesy of Kaiser Threde

# Why Mars?



Now: Cold and Arid



Past: Wet and Warm?

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